RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

September 15, 2017

Mr. William K. Honker, P.E., Director
Water Quality Protection Division
Environmental Protection Agency, Region VI
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733
ATTN: Mr. Brent Larsen

Re: Reissuance of NPDES Permit No. GMG290000
Oil and Gas Extraction Point Source Category, General Permit for Discharges from the Western Portion of the Outer Continental Shelf of the Gulf of Mexico

Dear Mr. Honker:

The Railroad Commission of Texas (RRC) has examined the referenced draft permit in response to the public notice in the May 11, 2017, issue of the *Federal Register* (82 FR 21995). In accordance with 31 Texas Administrative Code §506.12(b), National Pollutant Discharge Elimination System (NPDES) permits issued by the United States Environmental Protection Agency (EPA) under United States Code Annotated §1342, in Outer Continental Shelf waters are federal agency actions that are outside the coastal zone boundary, but which may adversely affect coastal natural resource areas. The RRC is the state agency responsible for determining Texas Coastal Management Program (TCMP) consistency of federal permits covering activities associated with the exploration, development, and production of oil, gas, and geothermal resources that may result in discharges to waters of the United States.

EPA Region 6 proposes to reissue the National Pollutant Discharge Elimination System (NPDES) General Permit No. GMG290000 for existing and new sources and new dischargers in the Offshore Subcategory of the Oil and Gas Extraction Point Source Category, located in and discharging to the Outer Continental Shelf offshore of Louisiana and Texas. The discharge of produced water to that portion of the Outer Continental Shelf from Offshore Subcategory facilities located in the territorial seas of Louisiana and Texas also is authorized by this permit. EPA proposes to retain in the draft permit, with certain modifications, the limitations and conditions of the existing permit issued in 2012. The 2012 permit limitations conform with the Oil and Gas Offshore Subcategory Guidelines and contain additional requirements to assess impacts from the discharge of produced water to the marine environment, as required by Section 403(c) of the Clean Water Act.

The RRC concurred with EPA's consistency determination for the current permit by letter dated September 27, 2012. Most of the authorized waste stream discharges proposed to be authorized by the reissued permit are retained from the current 2012 issued permit. EPA proposes to make the following major changes to the 2012 permit:

(1) In order to effectively track operators and associated operations, and because EPA's eNOI system only assigns one feature number to a specific type of discharge, the draft permit would require facilities connected with a bridge to file separate eNOIs. EPA also proposes to require operators to report company number and complex ID/API number assigned by or registered with the Bureau of Safety and Environmental Enforcement (BSEE) with their eNOIs, to allow EPA and BSEE to quickly cross reference to identify a specific facility.

(2) EPA proposes to include in the coverage of GMG290000 discharges from oil and gas facilities (drilling vessels) located in the area of coverage but not currently conducting oil and gas extraction activities. Any of the discharges, such as deck drainage and sanitary/domestic waste discharges, are the same as when a facility is operational and would otherwise be authorized by the permit.

(3) At the request of the Offshore Operators Committee (OOC), the draft permit includes a 60-day, rather than a 30-day) time frame for reporting of quarterly DMR.

(4) EPA proposes to include as part of the crude oil contamination test method for non-aqueous based drilling fluids NIST 2779. The National Institute Standards and Technology (NIST) has discontinued NIST Method 1582, which was the EPA approved method referenced in the 2012 permit. EPA proposes to include NIST Method 2779 as an alternative method to Method 1582 in the permit.

(5) The draft permit includes cement tracers to the list of authorized miscellaneous discharges. Because a small quantity of cement tracers is used for a job and most tracers will likely be encapsulated into the cement slurry as it solidifies, and because of the short emission travel distance and short half-life of Sc-46, the proposed discharges are not expected to contribute significant impacts to environment.

(6) EPA proposes to allow discharges of unused cement slurry for equipment repairs, if such a repair occurs during the cementing job. Because this would be in the nature of an emergency discharge not expected to be routinely occurring in the normal course of well-run operations, the authorization would be limited to once per calendar year per facility. EPA also proposes to authorize one discharge per well due to the reason of off-specification cement. The operator would be required to provide with the quarterly report the date, the identification of well or facility, the volume of cement, and the cause of the discharge.

(7) Based on information provided to EPA and because the permit requires daily monitoring of intake velocity, which could be an indicator of screen efficiency, EPA proposes to reduce visual or remote inspection to once per 6-month. The monitoring frequency for intake flow velocity remains daily.

(8) EPA proposes to add "brine and water-based mud discharge at the seafloor for temporary well abandonment" to the list of miscellaneous discharges that are authorized by the permit if such water based drilling fluid and brine have been demonstrated to comply with the permits conditions for their original use (e.g.: water based drilling fluids that have been shown to meet the permit's limits for SPP toxicity, free oil, and cadmium and mercury in stock barite).

(9) The 2012 permit authorizes discharges of small amounts of drilling fluids that have adhered to marine risers, diverter systems testing, and blow-out preventers (BOPs) in the category of *de minimis* discharges. This permit renewal clarifies the 2012 permit condition about the quantity of *de minimis* discharge to discharges that do not include any discharges of leakages.

(10) EPA proposes to remove study requirements for produced water and drilling fluids because operators completed studies and submitted results to EPA. The 2012 permit required operators to conduct water-based drilling fluid characterization study so that EPA may evaluate whether to establish chemical-specific effluent limitations for drilling fluids is necessary to further protect aquatic life. EPA received 25 total metal data sets, five (5) dissolved metal data sets, and 84 total metal data sets. Analysis of the total form of metal, instead of dissolved form, was allowed because laboratories had difficulty filtering drilling fluids to obtain dissolved metal concentrations due to the viscous nature of the fluids. Using the average dilution or dispersion values available for drilling fluid discharge scenarios (898 dilutions for organics and 4,203 dispersions for metals), ambient concentrations could be projected at the edge of a 100-rn mixing zone. Based on the dissolved concentrations, a discharge of drilling fluid would be unlikely to cause exceedance of federal water quality criteria, which are established in dissolved metal form, at the edge of mixing zone.

(11) On August of 2014, EPA issued the final rule on Use of Sufficiently Sensitive Test Methods (79 FR 49001) to ensure that analytical methods are sensitive enough to detect pollutants to a level of water quality criteria. EPA proposes that an operator may use analytical methods that are sensitive to detect Minimum Quantification Levels (MQLs) developed by EPA for EPA Region 6's NPDES permits to demonstrate in compliance with the Sufficiently Sensitive Test Methods rule.

(12) The operator also may choose other options (e.g., adjust the discharge rate, add a diffuser, etc.) to comply with the toxicity limits. The criteria dilution range listed in the 2012 permit for produced water at the edge of 100-meter mixing zone is between 0.07% and 11.72% depending on discharge rate, pipe size and the distance of discharge point from sea floor. EPA used the 7-day chronic toxicity testing to detect an aggregate effect of produced water on aquatic life, and toxic metals or chemicals may cause the failure of toxicity testing. The 2012 permit states that "This permit may be reopened to require chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity." The proposed permit includes a monthly retest frequency for 7-day toxicity testing until the effluent passes the toxicity retests and a toxicity reduction evaluation (TRE) in any case that the operator could not quickly identify the cause of testing failure. Each failure of toxicity test is considered a violation of the permit.

(13) As proposed, the reissued permit would require toxicity testing at a frequency of twice per calendar year for all sizes of facilities rather than once per calendar year for facilities discharging less than 4,600 bbl/day, and once per calendar quarter for facilities discharging 4,600 bbl/day or more.

(14) Because toxicity testing is required for all produced water discharges and the number of available laboratories is limited, EPA also proposes following time frames for produced water toxicity testing schedules:

- For new discharges, the first toxicity test shall be performed within 30 days after the discharge begins and then follow the twice per calendar year schedule.

- For existing discharges that were authorized under the 2012 issued permit, the operators may conduct the first toxicity test within six months from the effective date of the permit.
- The operator must conduct a new toxicity test if the sample used for the previous test did not represent flow back of well completion fluids, workover fluids, well treatment fluids, or hydrate control fluids.

(15) EPA proposes to require operators to report all produced water sheen observed during the quarterly reporting period instead of the number of days during the worst month. In addition, EPA proposes to require a sample with 30 minutes whenever a sheen is observed, rather than within two hours of when a sheen is observed, so a more representative sample could be collected.

(16) With respect to produced water monitoring, EPA proposes to add a requirement that a visual observation of a sheen must be reported to the National Response Center (NRC).

(17) EPA proposes to delete the marine sanitation device (MSD) language because operators that work at a facility, whether the facility is equipped with MSD or not, must comply with all operation, observation and reporting requirements established for discharges of sanitary or domestic wastes.

(18) In the 2012 permit, miscellaneous discharges cover about 20 different kinds of discharges and some discharges require more monitoring than others. EPA proposes to re-categorize those discharges based on their nature and potential pollutants of concern and establish specific monitoring requirements and/or effluent limitations for each type of discharges.

(19) EPA proposes to add toxicity limitation for pipeline brine discharges, because, if brine used for pipeline preservation contains much higher dissolved solids than the receiving water, it may be toxic to aquatic life at times when a high volume of such brine is discharged. EPA also proposes to restrict such discharges if an operator were to abandon a pipeline or umbilical in place with chemicals in it (i.e., not flushing and capturing the chemicals before abandonment or discharging at the time of abandonment).

(20) EPA proposes to allow operators to submit SEAMAP data instead of entrainment monitoring if the facility has done monitoring for two years, as a result of the industry-wide Cooling Water Intake Structure (CWIS) Entrainment Monitoring Study (EMS) dated March 24, 2014.

(21) In response to BSSE's comment that some operators filtered samples prior to delivery to the laboratory for analysis, EPA proposes to add the following statement: "[A]ll monitoring under this permit is required to comply with the approved test method procedure as described in 40 CFR Part 136, 40 CFR Part 435, and any protocol specified in this permit. This include sample collection, preparation, preservation and analysis protocol and use of sufficiently stringent test methods. Any changes to methods or protocol must be approved through the alternate test method procedures in accordance with 40 CFR Part 136."

(22) EPA proposes to clarify flow monitoring requirements for miscellaneous discharges to accurately quantify the total volume of discharges during the reporting period.

(23) The current permit prohibits discharges of well treatment, well completion, and workover fluids (TCW) that contain priority pollutants except in trace amounts. If materials added downhole as well treatment, completion, or workover fluids contain no priority pollutants, the discharge is assumed not to contain priority pollutants except possibly in trace amounts. Vendor certification indicating the fluids contain no priority pollutants is acceptable to meet this requirement. To be consistent with EPA Region 4's proposed general permit for offshore oil and gas extraction, EPA proposes to add the following statement: "[I]n case either a vendor certification is not available or the present of priority pollutants is in doubt, "Trace amounts" shall mean the amount equal to or less than the most sensitive method detection limit listed in 40 CFR Part 136 for the applicable parameter or as sensitive as MQLs listed in Appendix E of the permit."

(24) EPA proposes to require chemical reporting and toxicity testing requirements for effluents from well treatment, completion, or workover (TWC) operations because these discharges have not been studied in detail for a number of years and EPA does not have extensive data showing currently used chemical additives. Each TWC assessment must include the following information: (1) Lease and block number; (2) API well number; (3) type of well treatment or workover operation conducted; (4) date of discharge; (5) time discharge commenced; (6) duration of discharge; (7) volume of well treatment; (8) volume of completion or workover fluids used; (9) the common names and chemical parameters for all additives to the fluids; (10) the volume of each additive; (11) the concentration of all additives in the well treatment; (12) the concentration of all additives in the completion, or workover fluid; and (13) the No Observable Effect Concentration (NOEC) of 48-hour acute Whole Effluent Toxicity (WET) test for well treatment fluids discharged separately from the produced water discharge. The proposed permit requires that operator use the following methods to perform the 48-hour Acute Whole Effluent Toxicity Test Method: (a) The permittee must use the *Mysidopsis bahia* (Mysid shrimp) acute static renewal 48-hour definitive toxicity test using EPA-821-R-02-012. A minimum of five (5) replicates with eight (8) organisms per replicate must be used in the control and in each effluent dilution of this test; (b) the permittee must use the *Menidia beryllina* (Inland Silverside minnow) acute static renewal 48-hour definitive toxicity test using EPA-821-R-02-012 and a minimum of five (5) replicates with eight (8) organisms per replicate must be used in the control and in each effluent dilution of this test; and (c) the NOEC is defined as the greatest effluent dilution which does not result in lethality that is statistically different from the control (0% effluent) at the 95% confidence level.

Although hydraulic fracturing is a common practice for offshore oil and gas wells, there are significant differences in the operation compared to that done onshore. Hydraulic fracturing is done to repair formation damage near the wellbore and prevent erosion of the sand as hydrocarbon flows to the well. In addition, offshore hydraulic fracturing requires significantly lower volumes of hydraulic fracturing fluid and additives compared to most onshore wells. The 2012 permit authorizes the discharge of hydraulic fracturing fluids offshore under the category of well treatment fluids. Much of those fluids are comingled with produced water from the formation and discharged with the produced water stream. No available information has been found that suggests that there have been major changes in the chemicals used offshore since the discharges and chemical additives were examined during development of the Effluent Limitations Guidelines; however, no detailed data gathering and analysis has been conducted in a number of years. Therefore, alternatively, EPA proposes to allow operators who discharge well treatment completion and/or workover fluids to participate in an EPA-approved industry-wide study as an alternative to conducting monitoring of the fluids characteristic and reporting information on the associated operations.

(25) The 2012 general permit prohibits the discharge of dispersants, surfactants, or detergents except as necessary to comply with safety requirements of the Occupational Safety and Health Administration (OSHA) or the Bureau of Safety Environment and Enforcement (BSEE). Inspectors have found that dispersants, surfactants, or detergents have been used on platforms for purposes that are not consistent with the permit's prohibition and initiated two enforcement actions. Therefore, EPA proposes to revise the permit language to state that the discharge of dispersants, surfactants, and detergents is prohibited except when it is incidental to their being used to comply with safety requirements of the Occupational Safety and Health Administration and the Bureau of Safety and Environmental Enforcement, and that the addition of dispersants or emulsifiers to produced water discharges is prohibited. 40 CFR §110.4.

(26) A recent court case in which a Court of Appeals struck down the defendant's conviction for a false statement on the grounds that the certification language did not require him to have personal knowledge regarding the truth or falsity of the information submitted to EPA. Therefore, the proposed permit includes the following addition sentence in the certification statement: "I have no personal knowledge that the information submitted is other than true, accurate, and complete."

The RRC has reviewed this proposed action for consistency with the TCMP goals and policies in accordance with the regulations of the TCMP, and has found that the proposed action will not have a direct and significant adverse affect on any coastal natural resource area identified in the applicable policies, and has determined that the proposed action is consistent with the applicable goals and policies of the TCMP.

Please call me at (512)463-7308 if you have any questions.

Sincerely yours,

Leslie Savage, Assistant Director for Technical Permitting
Oil and Gas Division
Railroad Commission of Texas

Cc: Tiffany Humberson, Environmental Permits and Support
Oil and Gas Division